

Appl. No. 10/652,588
Amtd. Dated July 14, 2005
Reply to Office Action of March 14, 2005

Attorney Docket No. 81716.0110
Customer No.: 26021

REMARKS/ARGUMENTS:

Claims 7-9 are canceled without prejudice. Claim 1 is amended. Claims 1-6 and 10-22 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

The present invention relates to an optical element housing package for housing therein a wavelength coupling/branching device for coupling or branching optical signals which are different in wavelength from each other, an optical passive device such as an optical switch, or an optical semiconductor device such as a laser diode (abbreviated as LD) or a photo diode (abbreviated as PD) (hereafter referred to as an "optical element"), and also to an optical module constituted by optically coupling the optical element housing package carrying an optical element to an optical fiber. (Applicant's specification, at p. 1, lines 5-15).

CLAIM REJECTIONS UNDER 35 U.S.C. § 102:

Claims 1, 3, 4, and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Higashikawa (U.S. Patent No. 6,318,910 B1). The Applicant respectfully traverses this rejection.

Claim 1, as amended, is as follows:

An optical element housing package, comprising:

a base body having a placement portion formed on one surface thereof, on which an optical element is placed; and

a frame body attached to the one surface of the base body so as to surround the placement portion, the frame body having an optical fiber introducing portion formed in one end part of its side surface, the optical fiber introducing portion being shaped as a groove having a substantially U-shaped sectional profile, through which an optical fiber

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is inserted and brazed, wherein a lid body is brazed to one surface of the frame body.

wherein the optical fiber introducing portion has an opening having a width in a range from $r + 5 \mu\text{m}$ to $r + 200 \mu\text{m}$, and a depth in a range from $r + 5 \mu\text{m}$ to $r + 200 \mu\text{m}$, in which $r (\mu\text{m})$ is a diameter of the optical fiber.

Claim 1, as amended, incorporates the limitation of canceled claim 7. Higashikawa and Velsher et al. (U.S. Patent No. 6,796,725 B2) are directed to conducting hermetical sealing of the optical element, and fail to teach or suggest the above feature.

In Higashikawa, hermetical sealing in an optical fiber introducing section is realized by using a solder in combination with a resin such as silicone. However, in the present invention, the width and depth of an opening of the optical fiber introducing portion are specified to be in a constant range. This makes it possible to completely eliminate the occurrence of a void in a brazing filler material, and to protect the optical fiber against breakage effectively. Thereby, hermetical sealing of an optical fiber introducing portion is achieved favorably. (Applicant's specification, at p. 14, line 11-p. 15, line 10).

Velsher, similarly, fails to teach or suggest the above feature of the present invention. Therefore, based on Velsher's teachings, a person having ordinary skill in the art would not arrive at the present invention.

In light of the foregoing, Applicant respectfully submits that Higashikawa and Velsher could not have anticipated or rendered claim 1 obvious, because Higashikawa and Velsher fail to teach or suggest each and every claim limitation. Claims 3, 4, and 22, depend from claim 1 and therefore, cannot be anticipated or rendered obvious over Higashikawa and Velsher et al. (U.S. Patent No. 6,796,725

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B2) for at least the same reasons discussed above. Withdrawal of these rejections is thus respectfully requested.

Claims 1, 2, 13, 14, 16, 17, 19, 20, and 22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Velsher et al. (U.S. Patent No. 6,796,725 B2). The Applicant respectfully traverses this rejection.

Claims 1 and 22 are patentable over Velsher for the reasons discussed above. Claims 2, 13, 14, 16, 17, 19, and 20 depend from claim 1 and therefore, cannot be anticipated or rendered obvious over Higashikawa and Velsher for at least the same reasons discussed above. Withdrawal of these rejections is thus respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claims 5-7, 9, 10, 12, and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Higashikawa (U.S. Patent No. 6,318,910 B1). This rejection is moot with respect to claims 7 and 9 due to the cancellation of these claims. The Applicant respectfully traverses this rejection as to claims 5, 6, 10, 12, and 15.

Claims 5, 6, 10, 12, and 15 depend from claim 1 and are therefore, patentable for at least the same reasons discussed above. Withdrawal of this rejection is thus respectfully requested.

Claims 18 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Higashikawa (U.S. Patent No. 6,318,910 B1) in view of Velsher et al. (U.S. Patent No. 6,796,725 B2). The Applicant respectfully traverses this rejection.

Claims 18 and 21 depend from claim 1 and are therefore, patentable over the cited references for at least the same reasons discussed above. Withdrawal of this rejection is thus respectfully requested.

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Claims 8 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Velsher et al. (U.S. Patent No. 6,796,725 B2). This rejection is moot with respect to claim 8 due to the cancellation of this claim. The Applicant respectfully traverses this rejection as to claim 11.

Claim 11 depends from claim 1 and is therefore, patentable over Velsher for at least the same reasons discussed above. Withdrawal of this rejection is thus respectfully requested.

The art made of record but not relied upon by the Examiner has been considered. However, it is submitted that this art neither describes nor suggests the presently claimed invention.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6810 to discuss the steps necessary for placing the application in condition for allowance.

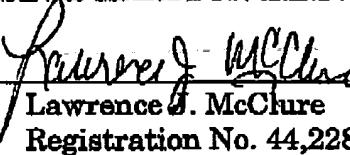
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If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1814.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: July 14, 2005

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